

What Is Claimed Is:

1. An organic electroluminescent device, comprising:

first and second substrates facing and spaced apart from each other, the first and second substrates having a display region and a peripheral region, the display region including a plurality of pixel regions and a dummy pixel region;

driving thin film transistors respectively adjacent to each of the plurality of pixel regions on the inner surface of the first substrate;

first connection electrodes respectively connected to the driving thin film transistors;

a first electrode on an entire inner surface of the second substrate;

a sidewall on the first electrode at a boundary of each of the plurality of pixel regions and the dummy pixel region;

an organic electroluminescent layer on the first electrode;

second electrodes on the organic electroluminescent layer so that a second electrode is present in each of the plurality of pixel regions and the dummy pixel region, respectively, the second electrodes in each of the plurality of pixel regions are respectively connected to the first connection electrodes; and

a sealant attaching the first and second substrates.

2. The device according to claim 1, further comprising:
a pad in the peripheral region on an inner surface of the first substrate; and
a second connection electrode connected to the pad, the second connection electrode formed in the same layer and formed of the same material as the first connection electrodes,
wherein the first electrode is connected to the second connection electrode.
3. The device according to claim 1, wherein the second electrode in the dummy pixel region is electrically floating.
4. The device according to claim 1, wherein each of the driving thin film transistors includes a driving active layer, a driving gate electrode, and driving source and driving drain electrodes.
5. The device according to claim 2, wherein each of the driving thin film transistors includes a driving active layer, a driving gate electrode, and driving source and driving drain electrodes, and wherein the pad includes the same material as the driving source and driving drain electrodes.

6. The device according to claim 4, further comprising switching thin film transistors connected to the driving thin film transistors, wherein each of the switching thin film transistors includes a switching active layer, a switching gate electrode, and switching source and switching drain electrodes.

7. The device according to claim 6, wherein the driving active layer and the switching active layer include polycrystalline silicon.

8. The device according to claim 6, wherein the switching source electrode is connected to the data line, wherein the switching drain electrode is connected to the driving gate electrode, wherein the switching gate electrode is connected to the gate line.

9. The device according to claim 1, further comprising a power line connected to the driving thin film transistors.

10. The device according to claim 1, further comprising storage capacitors connected to the driving thin film transistors.

11. The device according to claim 1, wherein the first electrode is an anode injecting holes into the organic electroluminescent layer, and wherein the second electrodes are cathodes injecting electrons into the organic electroluminescent layer.

12. The device according to claim 11, wherein the first electrode includes one of indium-tin-oxide (ITO) and indium-zinc-oxide (IZO).

13. The device according to claim 11, wherein the second electrodes include one of calcium (Ca), aluminum (Al) and magnesium (Mg).

14. The device according to claim 2, further comprising an auxiliary electrode between the first electrode and the second connection electrode, wherein the auxiliary electrode includes the same material as the second electrodes.

15. The device according to claim 1, wherein the dummy pixel region surrounds the plurality of pixel regions.

16. The device according to claim 1, further comprising an auxiliary insulating layer between the first electrode and at least one of the sidewalls.

17. A method of fabricating an organic electroluminescent device, comprising:

- forming a first substrate having a display region and a peripheral region, the display region including a plurality of pixel regions and a dummy pixel region;
- forming driving thin film transistors respectively adjacent to each of the plurality of pixel regions;
- forming first connection electrodes respectively connected to the driving thin film transistors;
- forming a first electrode on a second substrate having the display region and the peripheral region;
- forming a sidewall on the first electrode at a boundary of each of the plurality of pixel regions and the dummy pixel region;
- forming an organic electroluminescent layer on the first electrode;
- forming second electrodes on the organic electroluminescent layer so that a second electrode is formed in each of the plurality of pixel regions and the dummy pixel region, respectively; and
- attaching the first and second substrates with a sealant such that the first connection electrodes contact the second electrodes.

18. The method according to claim 17, further comprising:
forming a pad on the first substrate, the pad being disposed in the peripheral region;
and
forming a second connection electrode connected to the pad,
wherein the first electrode is connected to the second connection electrode when
the first and second substrates are attached;

19. The method according to claim 17, wherein each of the driving thin film transistors include a driving active layer, a driving gate electrode, and driving source and driving drain electrodes.

20. The method according to claim 18, wherein each of the driving thin film transistors include a driving active layer, a driving gate electrode, and driving source and driving drain electrodes, and wherein the pad and the driving source and driving drain electrodes are formed at the same time.

21. The method according to claim 19, further comprising forming switching thin film transistors connected to the driving thin film transistors, wherein each of the switching thin film transistors includes a switching active layer, a switching gate electrode, and switching source and switching drain electrodes.

22. The method according to claim 21, wherein the driving active layer and the switching active layer include polycrystalline silicon.

23. The method according to claim 21, wherein the switching source electrode is connected to the data line, wherein the switching drain electrode is connected to the driving gate electrode, wherein the switching gate electrode is connected to the gate line.

24. The method according to claim 17, further comprising forming a power line connected to the driving thin film transistors.

25. The method according to claim 17, further comprising forming storage capacitors connected to the driving thin film transistors.

26. The method according to claim 17, wherein the first electrode is an anode injecting holes into the organic electroluminescent layer, and wherein the second electrodes are cathodes injecting electrons into the organic electroluminescent layer.

27. The method according to claim 26, wherein the first electrode includes one of indium-tin-oxide (ITO) and indium-zinc-oxide (IZO).

28. The method according to claim 26, wherein the second electrodes include one of calcium (Ca), aluminum (Al) and magnesium (Mg).

29. The method according to claim 18, further comprising forming an auxiliary electrode between the first electrode and the second connection electrode, wherein the auxiliary electrode and the second electrodes are formed at the same time.

30. The method according to claim 17, wherein the dummy pixel region surrounds the plurality of pixel regions.

31. The method according to claim 17, further comprising forming an auxiliary insulating layer between the first electrode and at least one of the sidewalls.

32. A method of fabricating an organic electroluminescent device, comprising:
forming a first insulating layer on a first substrate having a display region and a peripheral region, the display region including a plurality of pixel regions and a dummy pixel region;

forming an active layer on the first insulating layer at each of the plurality of pixel regions, the active layer including polycrystalline silicon, the active layer having source and drain regions;

forming a second insulating layer on the active layer;

forming a gate electrode on the second insulating layer over the active layer;

forming a third insulating layer on the gate electrode;

forming a fourth insulating layer on the third insulating layer, the fourth insulating layer having first and second contact holes, the first contact hole exposing the source region, the second contact hole exposing the drain region;

forming source and drain electrodes on the fourth insulating layer, the source electrode being connected to the source region through the first contact hole, and the drain electrode being connected to the drain region through the second contact hole;

forming a fifth insulating layer on the source and drain electrodes, the fifth insulating layer having a third contact hole exposing the drain electrode;

forming a first connection electrode on the fifth insulating layer, the first connection electrode being connected to the drain electrode through third contact hole;

forming a first electrode on a second substrate having the display region and the peripheral region;

forming a sidewall on the first electrode at a boundary of each of the plurality of pixel regions and the dummy pixel region;

forming an organic electroluminescent layer on the first electrode;

forming a second electrode on the organic electroluminescent layer in each of the plurality of pixel regions; and

attaching the first and second substrates with a sealant such that the first connection electrode contacts the second electrode.

33. The method according to claim 32, wherein the first, third, fourth and fifth insulating layers are sequentially formed on the inner surface of the first substrate in the dummy pixel region.

34. The method according to claim 32, further comprising:

forming a pad on the fourth insulating layer, the pad being disposed at the peripheral region, wherein the fifth insulating layer, formed on the pad, has fourth and fifth contact holes exposing the pad; and

forming a second connection electrode on the fifth insulating layer, the second connection electrode being connected to the pad through the fourth contact hole and the second connection electrode contacting the first electrode when the first and second substrates are attached.